Menlo Park Notebook #89 [N-80-02-06]

This notebook covers the period February-May 1880. Most of the entries are by Albert B. Herrick. There are also a few entries by other laboratory assistants. The book contains a record of experimental lamps burning at Menlo Park. The label on the front cover is marked "Record of Experimental Lamps." The book contains 282 numbered pages.

Blank pages not filmed: 154-273, 276-277, 280-281.

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GENERAL

_____, 189_.

605 Rec 870

Commenced running at 5.40

Broke Jet 3 minutes

Broke in Rotary clamps
Drilled on 603

604 Rec, 450

Commenced running at 7.40

Drilled on 6.55

Jet broke

Started 1.20 Pulling Pipe

Running

4/No 607 Rec 1870

O/No Custom Fiber with
Logwin Fiber clamps commenced
8.20 PM.

Commenced burning 12.45—
Feb 6th 1880
Burnt at 9.50
Burnt 8.15 Feb 6th
Burning Fine

608 Rec 1870

Commenced Burning on
Bartholow Patent
Logwin Fiber clamps
Commenced burning at—
9.10 PM.
4 B/No Bartholow ~~commenced~~

Burnt 8 + 22 + 4
29 hours to total burn
Longest fiber lamps. —

6

Eng. of the Trouble
Syginum Fibra Clamps
Condemned with fever
B.B. 2 o'clock PM. Much on pumps

to 626 experimental

Res. 267 in steel lamp stand
on long tables in Lab. Feb 10 1880

Commenced 2.15 PM
Burning at -

Clamps wide apart glass between leading wires Syginum Fibra Clamps

12 inch fibre round - about
[illegible] fibre broken at - pages 5 -

7

627 Rev. Stand & Clamp for posts—
Bottle 20 drams nec. commenced
Rev. 320 burning at—
Inside glove glazed platinum
Mica inside apeal— 9.50 F.M.
Bursted at— 10.22 by accident—
Glove broken Clamp gas— heated

634
Rev. 240 commenced burning
at— 10.12
Bottle Rev coils
Bursted at— Pre.

Bench

to 635

Res 385

Commenced timing at Res. coils

Feb 10 1880

— 10.2 —

Gave out 7½ hours

Glass broke as a result of bad clamping.

12

636 for stand on Sub. Table Cap

Ps. 418

Commenced 1 Feb. 11 1880. 9 A.M.

Running at- { 415 — Rev.

√ Braided Fiber

at- 91.0 Total knots

6 Clamps lost- Tensile broke

636 for stand on Lab. Table Comp

Rev. 418

Commenced Feb. 11 1880. 9 A.M.

Running at- { 415 — Rem.

√ Braced Fibre

at- 91.00 Total Issue

Clamp Nut- Issue note

635 On stand in Long Pasture

Res. 342

Commenced Running at Buster

Feb. 12 1880

4:15 P. M.

Carbon Sealed 10 in 2

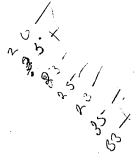
Bimlea Fibers

Clamp ~~Left~~ ~~Pasture~~ cause broke

Broke 1/4 inch above clamp

16

638 No Rec given
Rec. .001 fiber
Rec. Gave Forke [illegible]
total Casing given [illegible]



639 No Rec given
.001 fiber
Rec
Rec. on tubes Tested Rec
9,10 P.M. (Hammers Trouble)
Busted
in 8 minutes time
fibers Forke Casing comp
Clamps No Leaks
Tubes Rec on pumps and run
Stand 30 min.

680 On table on Laboratory

Rec 2 2 2

Commenced running at Feb 13 1880 4.00

Cocoa Mud - Champ

Immersion Tube

~~Emb~~ one 2.503

687 On table in Laboratory.

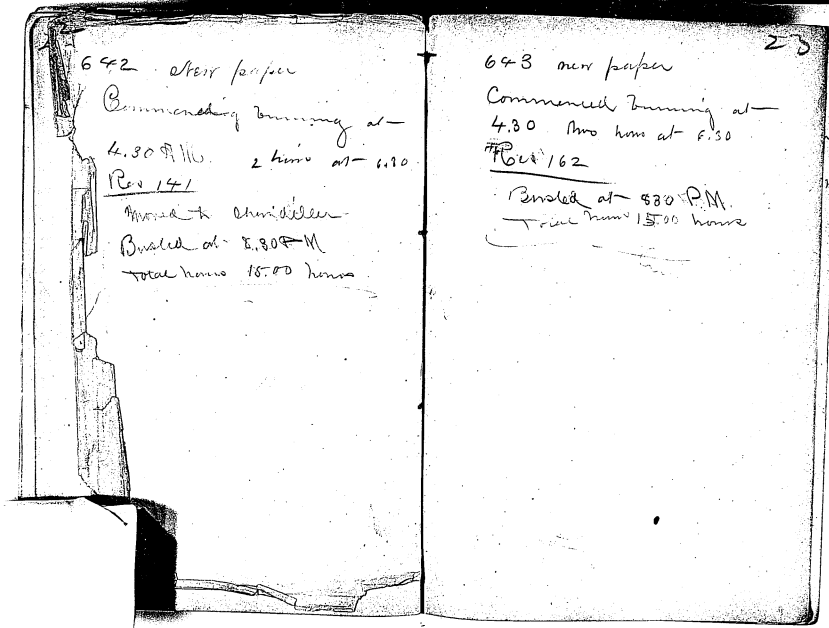
Res Manilla Jr

Commenced running at Feb. 13 1880 4.00 P.M.

Broken at 6.20 Total time 2 hrs. 20 min. 2.20

Went on the positive side

6.89 Qm long table on laboratory
Res. 800 P permanent – commit
7.15 – Feb 12
Lower Unit Line
Cross Unit Line
Private at ½ Quantum
Large figure No. 689
Price



642 Street sweeper

Commenced Running at—

4.30 P.M. 2 hours at 1.10

Roll 141

Moved to Christadler

Braked at 8.30 P.M

Total hours 15.00 hours

643 Street sweeper

Commenced Running at—

4.30 Two hours at 8.30

Roll 162

Braked at 830 P.M.

Total hours 15.00 hours

2X

645 Hungry Hill and Leading mines

Res. 137

25 ohms res. in series

2.50 Fr. 11.

Nothing in track

Small-Howitzer regulator

12

12.50
2.50
9.10
5.00
14.00
5.00
19.30

Small Howitzer 14

Large " 48

Large " 16 Large Howitzer

Parallel Cartons at pos. 3

Small Cartons

640 Hungry Hill and Leading mines 2X

Res. 215

With 20 ohms res. German silver wire

Commenced running at 2,45 am

Cocoa Mill - Clamps

" " Fiber

14.00

10.00 hours

Clamps broke one in clamps

see effect on platinum wire

6446 Coconut fiber

Run 79 Commenced burning

at- 4.15- 7.10

Coco. fiber Cocoa Clamps

3 hours total time burned

broke at the clamp had place

6454 Carbon rod

at- clamps

before burning

28

646
Reo 379 Broke at —
Camps no named
Broken to get — Camps
Jobes —

653 — 654 Put up ammo
600 shots badly assigned in about
hour up to see how long burned
not counted Feb 16 1880
65-4 Brig Corps trucks
22
22
22
22
69 Shots Burned
seemed to get — brighter all
the time omitted Jobes get Jobes
3
653 Burned at —
total hours 280
Feb 27, 1880 at 8 P.M.

30

657 on hand-books on 31
Res. 25-0 long table 5.40 PM
To be timed every 30 min
13/1000 paper small books
High res.
Time timed from on 5-40
6.10+
6.40+
7.10+
7.40+
Burned at 10.55 8.10+
Stopped Burn. 8.20
tin foil got crossed 8.50+
Burned 5.15 — time 9.20+
hours 9.50+
10.20+
70.50

32

652 Jn Chandelier 33

by organ. smith order.

Commenced burning at— 6.20 PM

Drizzle torpo

Cal-fum. 13/1000 parker

high. Bar. 270

Taken from Chum. and

fowl-over Churchis Bench

118 hours.

Broken at- portion

between clamp and anode

8X

496 Dr. Jno. Batchelder
Bench
Rec'd 130 Double Cushion
one Leaver for exts.
~~9.45~~
11.25

35

470 On Batchelors Bench J6

Rev. 130

Diuvill carbon

Commenced burning at 11.15 Feb. 13 1880

Taken out of Batchelors Bench and put in chamber by again turning during 30 minutes

11,20
11,50
12.20

Bristled in 4½ hours:

carbon broke out — Pos 4.

56

4/2 On Rubbing table on Hand 3

Camp
Rec. 442
Commenced
turning at-

Feb. 13. 1850
11.20 PM

to be trimmed every 30 minutes
Small Carbon rod secured for
exp.

11.20
11 50 "
12.20 "
12 50
12.25 2, 30 = Total

Looked as if Top corner
had snapped off.

38

491 over Pomeiss Bench 39

Res. 160

Commenced

Finished over as

40

6-9 Res. 13- 27

Longé Gelée ordre entrée

Biscuit — 6 hommes en sol:

Bretel en Dimanche à 1- 6.s.

Biscuit à 1-/3. 12

Droit Kaour ordre hommes

Q2

Jim Preston Principal Player

690 Donald Canton in 6½ Hours

Rec 160.

Commenced running at 2.00 P.M.

Bowled at 9.00 P.M.

9.00 hours Total.

6685 points were scored

Gales Limited Donald Canton

Rec. 175 Donald Canton

Reserve Champion

Commenced running at 2.00 P.M.

8.48 Bowled

6.45 Total

D2

66 g Arnold & carbon 1 soaked over
Completion from 6 1/2 Trans
Res. 160 Com. burning at - 200
Burned at - 6.30.
4.80 Total Burning time.

Tot. 171 $00

671 Arnold Carbon on Line on
Res. 938 Long tubes
com burning at -
4.25 - PM
Developed in oxygen glossy pressed
paper
Burned at - 8.45 -
Carbon Blocked at - 1200 V
Arnold 4.20 Trans

46

672 Small Carbon on Foreign Tube

Rec'd / Commenced burning at 4.25

Started in oxygen

Broiled in pan 5

Broiled at 9.00

Total time burned

4.35 Total time

673 Small Carbon commenced burning at 4.25

Rec'd 80

same as 672 time and

page

Broiled at 9.00 PM

Total time 4.35

676 Exp. post-on Table at 12 midnight — Feb 18 1880
Pos. 70 Engaged after-cutting X

12 24
12 12 45
37.45

676 | 22.
76

42 hours Total - up to 8 P.M. Feb - 26. 1880
Nil.

679 Put on table at - midnight
Feb. 1880 Longer Girls
Pos 60 Third wat -
Same rd Dr 676
Started at about 12 mid night
Left-over
Total hours 24 hours

37.00
7.50
29.10

676 Post-oak table at midnight
Feb. 18 1860.
Clear 61 above
Done 60 6760 P.

42 Hours Total - up to 8 P.M.
Feb-20-1860.-

Finished at 5 o'clock P.M.
Total hours 118 hours total

681 Post-oak table at
25 [illegible] 1818 1860

Double loop auger
coated Carbonized tenon
middle pedates
Post-oak bench

1 @ 7.50
4.10
1.00
12 @ 2.10
1.40
37.45
681

44 Hours Total Feb 20 - 750 P. M.

52

6 pc on table R 79

Commenced hunting
at 3.40 P.M. Feb 29 1880

Result Organised before
collegate church together
see 13.0 book

Bristol on pen. 1
Bristol at 6.00
2.20

685 over table ordure out 53
paper 4.55 A.M. Feb 29 1880
Commenced hunting
Bunch of runner peas
Bristol on pen 12
11.30
4.30 P.M. 95.0
12.00
4.55
7.05

11.25

J-4

Feb 20 1850

684 over cotton Tassels

commenced to grind at

Branch of Jute Fiber

Rev 290 5.25 A.M.

Total 14 Hours at 8.25 Feb 20-1850-

684 Rev 103.

Small Jute Factory

Commenced butting at

5.35 Feb 20. 1850

on two tables by 2 persons

682

Total 14 Hours at 8.25 Feb 20-1850.-

Buseld at 9.00

Total hours 14.40 mins

56

689 On heading mine

Large bunch fine jute

Back cinders it- broach

root

11.37 Fdk

Glass Plates

don't know time

4.30

8.20 total running time

688 on heading mine

Bunch of jute fibre

Carbons here Back after to

all over

11.50 Fdk Fdk 30 CB

Busted at Clamp

~~Don't know time~~

8.30 taken

8.20 total hours worked

68 3, on Loading mine on Rec
Small torpedo
3.00 P.M. Feb. 20 1880

Total Horses burning 5 - at 8 P.M.
- Feb 20 - 1880 -

6807 On loading mine
Commenced burning at 2.00 P.M.
Feb. 20. 1880

Total No. Horses 4 - at 8 P.M.
120 Tons. March 11, 1880 Feb 20 - 1880

Carbon hoisted at
dumps mine No. 120 tons

60

700 On leading wires by
2 chandeliers large bulbs
Commenced burning at- 4.50 PM
Feb. 20 1880

Res. 147 Large Edison

— — .010 in Brushes worked
in wrong set of carbon before cutting

Total 16 Hours 4- at- 8 P.M. —
Feb 20- 1880-

On Shelf —
Moved to Mr Batchelors
Bench. March 11 1880.
Taken

701 Res. 148

Brushes by John
Feb. 20 1880

61

62

696 12 40 PM Feb 20 1880

Rec 136 on Long Table

Moved to Reg book Page 79 #

Page B550 filed

now in charge by recipient

Burned March 2 1885

63

Page 35 Reg [illegible]

702 Bond heading Orizaba between 1 & 2

Chem Rec 190 Com. Running at Feb 21 at

P 2.30 P.M.

B Brickell & after burning 2 1/2 hrs

64 15 Jn Chem Third Junior
Reger
com Jimmy Feb 23 8:00 Am
Reg. sugarcell
Jn Reg took Page 75

713 Jn chem 7y agnes antonelli
Feb 23 8:00 Am Jimmy
Reg. sugarcell had dyer
in custody
Jn Reg took Page 71

64

705 on mines between 1 & 2 chains.
Feb 21 — 230 P.M. com. by mud
Bass fishers. Geo. 225

March over Minnesota Territory

Feb 23 | 1880 | Mch 7 | 9½ 176 154 339½ 317½

Had [illegible] March 7 — 12 midnight 317½ hours

220 537 317 582

23 12 11 220 11

March 25 — 1880 110

March 29. 640 1164 208 2148 2

Mch 17 1880 Angled Cinton
at foot S. Flat Agency

17 14 76 1 266

68

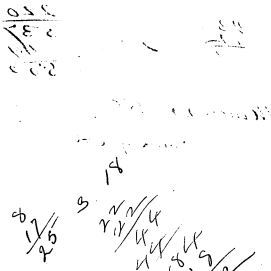
704 on leading corner between 1 & 2 chans.

Res. 400

Perm beginning at Feb 22. 2.30 P.M.

Bass filter 5X .014

Same as 705



69

702. on Mics between 1 & 2 chans. 3 stems

Res. 190 Perm beginning at 2.30 P.M. Feb 24/80

Bass filter 5X .014

Moved over' mng desk

Feb. 25 1980

Moved one cubic foot

3 inches

70

707 over Carbon table Jan Class
Westonis commenced running at—
Feb. 22 7 o'cl P.M. 1880 Reo 142
Reg custom engraved
March 4 burned carbon
Ended at pos. 8 at 7.00 P.M.
Total time 281 hrs 00 min
Returned

706. Over Pass. Clerks table Operation

Reo 141
Ran running Feb. 22 7.00 PM 1880
Reg. custom engraved
Carbon broke out - between Pos.
1 and 8 time — 8.00
Total hours 8 — 15 2 — 26 — 26
Burned at 9.00 A.M. Feb 2
Total run running — 8.00
" " 45 hours

71

72

724 Brevet Battalion Bench

Rev 125 Feb. 24. 1880

Large Troops entrenchment

.010 prepared in

Standard Rule.

180 March 24/1880

722 Iron Chamber dry region 73

Rev 97

Bricks at Rest 8 in about

8 hours

Large Loop entrenchment .010

rapidly Prepared in Standard

and entrenched.

74. 729 Mer Microscope Tubes
on order.
Rec'd 160 pieces ends cracked
in transit engaged
Smalley ~~Eng Co~~
carbon tube at piece ends —
~~from~~

739 or Long Tables Mons.
Rec 144
Com. Running at —
9,15 — Feb 26. 1880
Reg. engaged
Glass mettle Rubb —

76

78-6 on Rhode Island
carbon brike ad- position 6 77

Burnt on Saturday Feb 27, 1880
about 22 hours Req Engineer
Rev. 130 Jacobs

78

762 on Second Chronometer from again

Res. 172

Com - b. found March 2 1880 at - 5.30 AM.

Reg. carbon standard sol. Bad spots in the Carbon

Mounted at 2nd spot - after trimming 7 hours

761 on Liverpool made Chron from again

Res. 203

Com. running at - March 2 1880 5.30 AM.

Reg. carbon Standard sol.

Fusion soft - very bright

13

79

80

742 On Chain by pmm 2
Res. 190
Comd. burning at Manch. 2/1880
5.30 PM.

Large Loop Standard Sol.

Taken down stairs to test
Brought ups and put over
Mr. Batchelors Bench

Marked + Reg Book

774 On Long Table. Inp. Stairs St Lab.
Res. 207
Large full glass
Comd to burn. March 2 1880
at 3.30 PM.

82

773 Ore. Lab. table 83

Reg. 705. Lange bulb. glass

Penn. Training at 2 March 1880

3.00 P.M.

Changed to Reg book

84 Exp.

808 Open Cuban Table
Impeban Res 6.900
March 6. 1880 7 P.M.
Blowed at - platinum wire
fused and glassed sealed
Burnt about 8 min.
one fifteen of fuse with copper ends

808 Jr Chim Thimble from
organ Res. 195
Put up at March 6 1880
Large Exp 24 Inches out -
and fuses together
Blowed at 9.00 total time -
28 time none parted

83

790 Ct head Sisters in Chas 87
Contended
Res.
March 3 1880

Charlie gone to the Star
Broke 18 in sheets Irons
Pressed before cutting
Carbon to 89 Lay Loop
~~Handed~~ gone
13 Inch Wide 2/+

58

709 one carbon Tantalum disc
Res. 187
Small carbon .015 - paper
March 6 10 P.M. 1900.

Burner 20 mm Bunsen
9 Cross Wound

792 Other Inn Butchelbach
Bench
Res. 197
Com 2 Inn { Inn 7
at 6.00 P.M

Busted at position 2
Total hits 10

827 Dr Edward Thurn 93
from organ
Rec. 87
Corp. A. Comm Branch 18 1880
0.80 H.M.
Small drop .015 Soaked in
Sulphate of ammonia pressed
To .007 (compressed) at end of
Carbon
hrs 3mm = 11 hrs

8 29 Pierson chimes
from organ
Rec. 85-
Com. to time March 10 1880
G.H.M.

Small toppo .115- Paper backed
in sulphate of ammonia pressed
to .007 approved
Brates
hms 12 hms ~~thumb~~ thumb 1892
Brates at position 3

96

97

1836 Mr Shaw by organ
north side
Rev. 13 mo 1st Thirty minutes
Mamillon Fibers ends cupped
plated
Interior drum Illinois

98

8 32 Pro. Bunker took 99
839 / March 12 1880

825 Woods stains in Photomicr.
Rooms Exp Pro Roland
K198
Broken off at clamps —
Palmetto Leaf 138
Copper plated

834 Woods stains Exp.
Pro Roland Glass broke
Res. 198
Mammillea fiber .007 stain —
Copper

857 Small loops soaked in
Res. 280 before staining
stain pressed Rm 154.
Copper

All above samples run
down stairs showing the
experiment March 11 12 / 1880
Mrs. exact running time
as not known. did not touch up Sept. 14

102

856 Jn Francis room 103
Rec. 50 March 24/1850
Burnt – 2 Rms taken with
a report –
Palmetto leaf supposed very
poor pass

528 E+P. Lamp did not burn
Low Res. 87 March 15 1880
Paraine heated at pos. 6

Small losses .015 Paper soaked
in sulphate ammonia pressed
to .007 supposed

831 ♂ ♀ p. Lathrop March 14 1850
Res 84
Bonated Types. 6
March 15/1850

Small Loops. .015 paper
Soaked in sulphate of ammonia
pressed to .007 dispersed

811 Exp. Lamps Month 14 1885 109

Ref-to

Manilla Fiber ends copper-
plated Carbon exp 122

110

848 Ord. p. Stamps March 14 1889

Res. 44

Palmetto Leaf Appeared

830 Small Loop .015 paper 13
baked in ammonia and pressed
& .007 copper
R=0.8 March 14 1860

114

872. March 14 1840 113

Rec. 85

Small Leaf soaked in sulphate
& ammonia & pressed

116

826 Mrs grass custom 127 117
Res 98 Copper-plated very brittle
March 14 1850

827 Lucille Lodge Dist - page 119

Res. 87

Ordered in substance of amount passed 4.1.07

869 Small soap g.o.s soaked
in sulp Ether of ammon pressed
worked at ten hours on pumps
could not get high Vacuo

870 March 14 1850 123

Rec. 97

Double doses of 0.05 dissolved in sulphate of ammonia passed on pumps can have not high fevers

8-29 Braked on Bulkhead at 120
Rec. 85 — comma passed and [illegible]
copied

124

924 Civil Papers Intl Vol 2

Rec'd 29 March 18 1880

Mummulla fiber carbon 1.62

Copperas Com. 6m 3.80

Bristol ft 10 m 7 8/10

Very bright dyer - for dumps
also a dimpled bright
dyer other for the, at pro 6

430 m Total hums turned.

Mistaken for 921

Civil turning 13

24.
18
18
13
45
15
195

128

129

9.2.1 Abra paper inoculum
Res. 498 March 18 1920
Mimulus fibers Car. 160
3.30 P.M. coppered

Bristol at Res. 4 1.40 hours
60

130

918 Over my Block 131

Res 750 —

Cor. to Bruin | March 18. 1880

8.45 P.M.

Selected Mamilla fisher centon 162

925. Over proper tubes
Res. 450
Com. 6mm

March 18 1850.
8.45 P.M.

Thimble Tube carbon 162

3.05 PM Bursted glass opened

6.20 Total time burned

920 by Mrs. Parker

Res 475

Committee March 18 1880

9.55 — 10.20 : 25 minutes

Selected Brunelle Parker

Can 162

~~Lind L.~~ Grand Trunk

136

9/2 on table two more 137
Red 500
10.25 — P.M.
Total crush glass broke to piece
nothing left except bulb
Selected Manilla High Ra
carbonized Total 4 hours

138

Taken by Pro Bracket 139
March 19 1880 5.5-3#

140

953 Exp Lamp

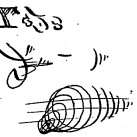
1 Build n: glass Bulb

immediately 1 Mount 28 1880

Michel exhib

Small Loop Inductive

Loc proved .815 — ϕ 007



141

Gfld. Given to the Harold of

U V Time Service

Sugano

Small loop Inductance Std

-815 Proved .007.

14296 on Irons over table

March 29 1880

Glass Broke after burning

coal 8.30

Rec. 3 1/4

9253 on Irons over table

March 29 1880

glass broke Tobacco burning

6.38.30

Rec 336

962 on axis over table

Res 229

March 29 1880

Carbon broke at No. 9

972 on axis over table

Res 720

Com burning 8.30

Juice burning two hours

1.30

3.30

10.30 30 March 5th hour

146

Lus.

887. over Table on mins

Res 251

March 29 8.30 P.M.

still burning

975 On Table 30 mins

R 130

Incandescent

March 30, 1880

Con. To burn at 8.30

147

14 ft Ground glass one of Arclights
arm & burner Apec. 3 1886
over. carbon failing 7 5 5
10
15

Mon Evening
April 3rd 11 15 Voltage
7 days @ 13
7
91 hours total 91
carbon broke on Saturday Apec. 368
very bright part time

a lamp mounted on Tuesday evening
arm burning Apec. 10 1886
R 442. at 10 Amp.
arm mounted of Lab. on morning
mid
10 candles power
high vacuum

110

993 on two wires on table
Rec 740 Bijou Incandescent lamps burnt 10 minutes
Manilla fibre. clamps
4 candle power
a/22 10 1880
high Vacuum.

991 Rec 420
Manilla fibre 8 candle power
on two wires over table
com. burning a/22. 10.1880
10. am. long glass
high vacuum.

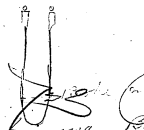
111

152

1079 Ore. main line
Rec.
Wood
Com. Running May 13 1880
10.30 ~~am~~
Wood carbon cut by
Chas. Heath on cam marking
This was ~~2~~ one of first three
cut—

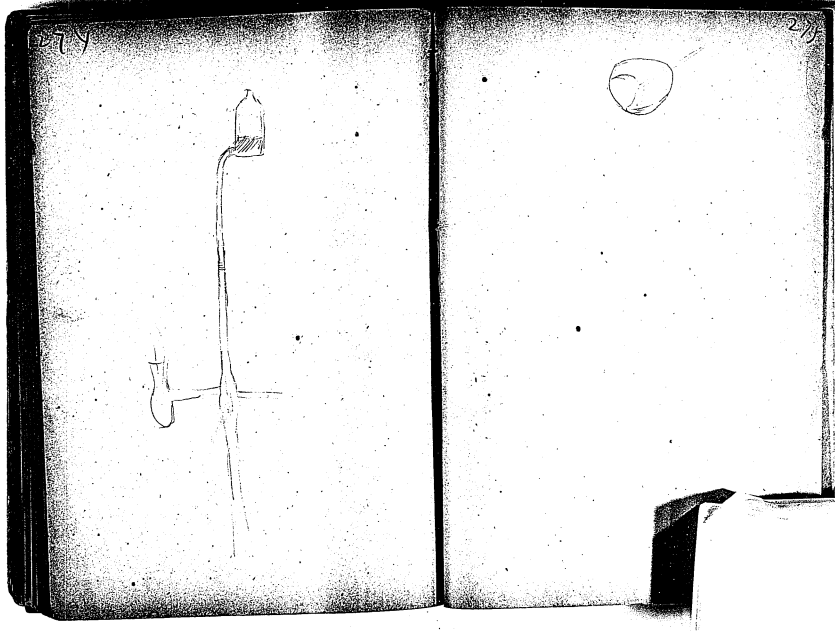
Record of Lamps
No 73

1080 Ore. main rivers
Rec.
Com. Running May 13 1880
10.30 A. M.
Wood carbon cut by Chas
Heath on cam marking
This was one of first three
cut—



Running

When running enter on railroad
Total Time 5 hours



Drawing No.	Catch	600		650		700			
603	1	644	27	689	56	778	86	870	125
605	2	645	28	688	57	808	84	829	125
604	3	653	29	693	58	880	85	924	127
607	4	654	29	697	59	790	87	921	129
608	5	657	31	700	60	789	89	918	131
609	6	652	33	701	61	792	91	925	133
626	7	490	36	696	62	827	93	920	135
627	8	492	37	702	63	829	95	912	137
634	9	491	38	715	64	836	97		
633	11	659	41	713	65	832	99		
636	13	670	42	703	67	834	99		
635	15	668	43	704	68	825	101		
638	16	669	44	702	69	834	101		
639	17	671	45	707	70	857	101		
630	18	672	46	706	71	856	103		
637	19	673	47	724	72	828	105		
639	21	676	48	722	73	831	107		
642	22	679	49	727	74	811	109		
643	28	678	50	739	75	843	111		
645	24	681	51	738	77	830	113		
640	25	675	52	762	78	872	115		
646	26	684	53	761	79	826	117		
		682	54	742	80	827	119		
		674	55	774	81	869	121		

82

47 : 402 :: 8 : x

47/3216 (8

47/3216 (8

47/2682

x = 400 × 400

x = 3216

x − x = 2682

g = 306 × 4

g = 1224

g + x = 1224 + 1600

1600

4400

1224

Thomas A Edison

Thomas A Edison

Thomas A Edison

Thomas A Edison